

Substitute for form 1449/PTO, based on PTO/SB/08A and 08B

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Application Number	10/735,601
Filing Date	12/12/2003
First Named Inventor	Smith et al.
Art Unit	1635-1633
Examiner Name	Brian A. Whitemann Robert M. Kelly
Attorney Docket Number	95-02

GWS 8/19/2005

AUG 26 2005

U.S. PATENT DOCUMENTS

Examiner Initial ¹	Cite No. ¹	Document Number (US-)	Publication Date (MM-DD-YYYY)	Name	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear (or entire document unless noted otherwise)
ZMK	1	6,844,188	01/18/2005	MacDonald et al.	
	2	6,783,939	08/31/2004	Olmsted et al.	
	3	6,583,121	06/24/2003	Johnston et al.	
	4	6,451,592	09/17/2002	Dubensky, Jr. et al.	
	5	6,426,196	07/30/2002	Dubensky, Jr. et al.	
	6	6,391,632	05/21/2002	Dubensky, Jr. et al.	
	7	6,376,236	04/23/2002	Dubensky, Jr. et al.	
	8	6,342,372	01/29/2002	Dubensky, Jr. et al.	
	9	6,329,201	12/11/2002	Polo et al.	
	10	6,261,570	07/17/2002	Parker et al.	
	11	6,224,879	05/01/2002	Sjoberg et al.	
	12	6,156,558	12/05/2000	Johnston et al.	
	13	6,146,874	11/14/2000	Zolotukhin et al.	
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	25	2005/0123555	06/09/2005	Olmsted et al.	
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	27	2004/0235133	11/25/2004	Frolov et al.	
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	31	2003/0119182	06/26/2003	Smith et al.	
ZMK	32	2002/0141975	10/03/2002	Olmsted et al.	

Examiner Signature	<i>Robert M. Kelly</i>	Date Considered	2/2/07
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Sheet 2 of 8

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		First Named Inventor	Smith et al.
		Art Unit	1695-1633
		Examiner Name	Brian A. Whittemann Robert M. Kelly
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FOREIGN PATENT DOCUMENTS

Examiner Initial ¹	Cite No. ¹	Foreign Patent Document Number (include WIPO country code)	Publication Date (MM-DD-YYYY)	Name	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear (or entire document unless noted otherwise)	T ²
MK	33	WO 04/085660	10/07/2004	Smith et al.		
	34	WO 03/023026 A	03/20/2003	Smith et al.		
	35	WO 02/20721	03/14/2002	Johnston et al.		
	36	WO 00/61772	10/19/2000	Polo et al.		
	37	WO 00/39318	07/06/2000	Polo et al.		
	38	WO 96/37616	11/28/1996	Johnston et al.		
	39	WO 96/37220	11/28/1996	Johnston et al.		
	40	WO 96/17072	06/06/1996	Dubensky, Jr. et al.		
	41	WO 95/31565	11/23/1995	Sjoberg et al.		
✓	42	WO 95/27044	10/12/1995	Liljestrom et al.		
	43	WO 95/07994	03/23/1995	Dubensky, Jr. et al.		
MK	44	WO 92/10578	06/25/1992	Garoff et al.		

NON-PATENT LITERATURE DOCUMENTS

Examiner Initial ¹	Cite No. ¹	REFERENCE Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
MK	45	Barouch et al. (2000) "Augmentation of Immune Responses to HIV-1 and Simian Immunodeficiency Virus DNA Vaccines by IL-2/Ig Plasmid Administration in Rhesus Monkeys," <i>Proc. Natl. Acad. Sci. USA</i> 97(8):4192-4197	
	46	Berglund et al. (1993) "Semliki Forest Virus Expression System: Production of Conditionally Infectious Recombinant Particles," <i>Bio/Technology</i> 11:916-920	
	47	Betts et al. (1997) "Cross-Clade Human Immunodeficiency Virus (HIV)-Specific Cytotoxic T-Lymphocyte Responses in HIV-Infected Zambians," <i>J. Virol.</i> 71(11):8908-8911	
✓	48	Bredenbeek et al. (1993) "Sindbis Virus Expression Vectors: Packaging of RNA Replicons by Using Defective Helper RNAs," <i>J. Virol.</i> 67:6439-6446	
MK	49	Caley et al. (1997) "Humoral, Mucosal, and Cellular Immunity in Response to a Human Immunodeficiency Virus Type 1 Immunogen Expressed by a Venezuelan Equine Encephalitis Virus Vaccine Vector," <i>J. Virol.</i> 71(4):3031-3038	

Examiner Signature	<i>Robert M. Kelly</i>	Date Considered	2/26/07
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		Art Unit	1635 (633)
		Examiner Name	Brian A. Whitemann Robert M. Kelly
		Attorney Docket Number	95-02

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MK	50	Caley et al. (1999) "Venezuelan Equine Encephalitis Virus Vectors Expressing HIV-1 Proteins: Vector Design Strategies for Improved Vaccine Efficacy," <i>Vaccine</i> 17:3124-3135	
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	52	Corsini et al. (1996) "Efficiency of Transduction by Recombinant Sindbis Replicon Virus Varies Among Cell Lines, Including Mosquito Cells and Rat Sensory Neurons," <i>BioTechniques</i> 21(3):492-497	
	53	Cutler et al. (1986) "Mutants of the Membrane-binding Region of Semliki Forest Virus E2 Protein. I. Cell Surface Transport and Fusogenic Activity," <i>J. Cell Biol.</i> 102:889-901	
	54	Davis et al. (1993) "A Genetically Engineered Live Virus Vaccine for Venezuelan Equine Encephalitis," <i>J. Cell Biochem. Supp O</i> No.17 part D, Abstract N404	
	55	Davis et al. (1996) "A Viral Vaccine Vector that Expresses Foreign Genes in Lymph Nodes and Protects Against Mucosal Challenge," <i>J. Virol.</i> 70:3781-3787	
	56	Davis et al. (1995) "Attenuated Mutants of Venezuelan Equine Encephalitis Virus Containing Lethal Mutations in the PE2 Cleavage Signal Combined with a Second-Site Suppressor Mutation in E1," <i>Virol.</i> 212:102-110	
	57	Davis et al. (1991) "Attenuating Mutations in the E2 Glycoprotein Gene of Venezuelan Equine Encephalitis Virus: Construction of Single and Multiple Mutants in a Full-Length cDNA Clone," <i>Virol.</i> 183:20-31	
	58	Davis et al. (1996) "Immunization Against Influenza with Attenuated Venezuelan Equine Encephalitis Virus Vectors," In: <i>Options for the Control of Influenza III</i> , L.E.Brown and A.W.Hampson, eds. Elsevier, Amsterdam pp.803-809	
	59	Davis et al. (1990) "In Vitro Synthesis of Infectious Venezuelan Equine Encephalitis Virus RNA from a cDNA Clone: Analysis of a Viable Deletion Mutant and Mutations Affecting Virulence," <i>Vaccines</i> 90:109-113	
	60	Davis et al. (1989) "In Vitro Synthesis of Infectious Venezuelan Equine Encephalitis Virus RNA from a cDNA Clone: Analysis of a Viable Deletion Mutant," <i>Virol.</i> 171:189-204	
	61	Davis et al. (2001) "Vaccination of Macaques Against Pathogenic Simian Immunodeficiency Virus with Venezuelan Equine Encephalitis Virus Replicon Particles," <i>J. Virol.</i> 74(1):371-378	
	62	Davis et al. (1994) "A Molecular Genetic Approach to the Study of Venezuelan Equine Encephalitis Virus Pathogenesis," <i>Arch. Virol.</i> 9:99-109	
↓	63	Dubensky et al. (1996) "Sindbis Virus DNA-Based Expression Vectors: Utility for in Vitro and in Vivo Gene Transfer," <i>J. Virol.</i> 70:508-519	
MK	64	Dubuisson et al. (1993) "Sindbis Virus Attachment: Isolation and Characterization of Mutants With Impaired Binding to Vertebrate Cells," <i>J. Virol.</i> 67:3363-3374	

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First Named Inventor	Smith et al.
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Examiner Name	Brian A. Whiteman Robert M. Kelly
Attorney Docket Number	95-02

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TMK	65	Favre et al. (1993) "Semliki Forest Virus Capsid Protein Expressed by a Baculovirus Recombinant," <i>Arch. Virol.</i> 132:307-319	
	66	Feyzi et al (1997) "Structural Requirement of Heparan Sulfate for Interaction with Herpes Simplex Virus Type 1 Virions and Isolated Glycoprotein C," <i>J. Biol. Chem.</i> 272(40):24850-24857	
	67	Garoff et al. (1983) "Expression of Semliki Forest Virus Proteins from Cloned Complementary DNA. II. The Membrane-Spanning Glycoprotein E2 is Transported to the Cell Surface Without its Normal Cytoplasmic Domain," <i>J. Cell Biol.</i> 97:652-658	
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	71	Grieder et al. (1995) "Specific Restrictions in the Progression of Venezuelan Equine Encephalitis Virus-Induced Disease Resulting from Single Amino Acid Changes in Glycoproteins," <i>Virol.</i> 206:994-1006	
	72	Heidner et al. (1994) "Lethality of PE2 Incorporation into Sindbis Virus can be Suppressed by Second-Site Mutations in E3 and E2," <i>J. Virol.</i> 68:2683-2692	
	73	Heise et al. (Jan. 2003) "An Attenuation Mutation in nsP1 of the Sindbis-Group Virus S.A.AR86 Accelerates Nonstructural Protein Processing and Up Regulates Viral 26S RNA Synthesis," <i>J. Virol.</i> 77(2):1149-1156	
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	77	Hodgson et al. (1993) "Expression of Venezuelan Equine Encephalitis Viral Proteins by Recombinant Baculoviruses," <i>Am. J. Trop. Med. Hygiene</i> 49:195-196	
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M. Kelly

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RMK	80	Holcik et al. (Jan. 2003) "The Internal Ribosome Entry Site-Mediated Translation of Antiapoptotic Protein XIAP is Modulated by the Heterogeneous Nuclear Ribonucleoproteins C1 and C2," <i>Mol. Cell. Biol.</i> 23(1):280-288	
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	91	Kondor-Koch et al. (1983) "Expression of Semliki Forest Virus Proteins from Cloned Complementary DNA. I. The Fusion Activity of the Spike Glycoprotein," <i>J. Cell. Biol.</i> 97(3):644-651	
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Examiner Signature	<i>R. J. Kelly</i>	Date Considered	2/2/07
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PK		Virus Particles in BHK Cells Using Semliki Forest Virus-Derived RNA Expression Vectors," <i>Proc. Natl. Acad. Sci. USA</i> 93:11658-11663	
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	100	Martinez-Salas et al. (May 2001) "Functional Interactions in Internal Translation Initiation Directed by Viral and Cellular IRES Elements," <i>J. Gen. Virol.</i> 82:973-984	
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	103	Melancon et al. (1986) "Reinitiation of Translocation in the Semliki Forest Virus Structural Polyprotein: Identification of the Signal for the E1 Glycoprotein," <i>EMBO J.</i> 5:1551-1560	
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	105	Oker-Blom et al. (1989) "Expression of Sindbis Virus 26S cDNA in <i>Spodoptera frugiperda</i> (Sf9) Cells, Using a Baculovirus Expression Vector," <i>J. Virol.</i> 63:1256-1264	
	106	Orkin et al. (1995) "Report and Recommendations of the Panel to Assess the NIH Investment in Research on Gene Therapy"	
	107	Paredes et al. (1993) "Three-Dimensional Structure of a Membrane-Containing Virus," <i>Proc. Natl. Acad. Sci. USA</i> 90:9095-9099	
	108	Polo et al. (1990) "Attenuating Mutations in Glycoproteins E1 and E2 of Sindbis Virus Produces a Highly Attenuated Strain When Combined in Vitro," <i>J. Virol.</i> 64:4438-4444	
	109	Presley et al. (1991) "Proteolytic Processing of the Sindbis Virus Membrane Protein Precursor PE2 is Nonessential for Growth in Vertebrate Cells but is required for Efficient Growth in Invertebrate Cells," <i>J. Virol.</i> 65:1905-1909	
V	110	Pugachev et al. (2000) "Development of a Rubella Virus Vaccine Expression Vector: Use of a Picornavirus Internal Ribosome Entry Site Increases Stability of Expression," <i>J. Virol.</i> 74:10811-10815	
PK	111	Pushko et al. (Dec. 2001) "Individual and Bivalent Vaccines Based on Alphavirus Replicons Protect Guinea Pigs Against Infection with Lassa and Ebola Viruses," <i>J.</i>	

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<i>MK</i>		<i>Virol.</i> 75(23):11677-11685-	
	112	Pushko et al. (1997) "Replicon-Helper Systems from Attenuated Venezuelan Equine Encephalitis Virus: Expression of Heterologous Genes in Vitro and Immunization Against Heterologous Pathogens in Vivo," <i>Virol.</i> 239:389-401	
	113	Rayner et al. (Sept. 2002) "Alphavirus Vectors and Vaccination," <i>Rev. Med. Virol.</i> 12(5):279-296	
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	116	Roberts et al. (1997) "Complementation of Defective Picornavirus Internal Ribosome Entry Site (IRES) Elements by the Coexpression of Fragments of the IRES," <i>Virol.</i> 227:53-62	
	117	Russell et al. (1989) "Sindbis Virus Mutations Which Coordinately Affect Glycoprotein Processing, Penetration, and Virulence in Mice," <i>J. Virol.</i> 63:1619-1629	
	118	Salminen et al. (1992) "Membrane Fusion Process of Semliki Forest Virus II: Cleavage-Dependant Reorganization of the Spike Protein Complex Controls Virus Entry," <i>J. Cell. Biol.</i> 116:349-357	
	119	Schlesinger et al. (1996) "Togaviridae: The Viruses and Their Replication," In: <i>Fields Virology</i> , 3 rd Edition, Lipincott-Raven Publishers, Philadelphia, pp.825-841	
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Examiner Signature	<i>R. M. Kelly</i>	Date Considered	2/2/07
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¹Applicant's unique citation designation number (optional).

²Applicant is to place a check mark here or "X" if English language Translation is attached.

Substitute for form 1449/PTO, based on PTO/SB/08A and 08B		Application Number	10/735,601
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Filing Date	12/12/2003
		First Named Inventor	Smith et al.
		Art Unit	1633
		Examiner Name	Brian A. Whiteman Robert M. Kelly
		Attorney Docket Number	95-02

GWS 8/19/2005

Examiner Initial ¹	Cite No. ¹	REFERENCE	T ²
		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
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Examiner Signature	<i>R.S.J. Kelly</i>	Date Considered	2/2/07
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OCT 12 2004

Sheet 1 of 3

Substitute for form 1449/PTO, based on PTO/SB/08A and 08B

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Application Number	10/735,601
Filing Date	December 12, 2003
First Named Inventor	Smith et al.
Art Unit	1636 1633
Examiner Name	Brian A. Whiteman Robert Kelly
Attorney Docket Number	95-02

GWS 10/12/2004

U.S. PATENT DOCUMENTS

Examiner Initial*	Cite No. ¹	Document Number (US-)	Publication Date (MM-DD-YYYY)	Name	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear (or entire document unless noted otherwise)

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No. ¹	Foreign Patent Document Number (include WIPO country code)	Publication Date (MM-DD-YYYY)	Name	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear (or entire document unless noted otherwise)	T ²
ZMK	1	WO 92/10578	06/25/1992			
ZMK	2	WO 99/08706	02/25/1999			

NON-PATENT LITERATURE DOCUMENTS

Examiner Initial*	Cite No. ¹	REFERENCE Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
ZMK	1	Balasuriya et al. (Feb. 2002) "Alphavirus replicon particles expressing the two major envelope proteins of equine arteritis virus induce high level protection against challenge with virulent virus in vaccinated horses"; <i>Vaccine</i> 20:1609-1617.	
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✓	6	Frolov et al. (1996) "Alphavirus-based expression vectors: Strategies and applications"; <i>Proc. Natl. Acad. Sci. USA</i> 93:11371-11377	
ZMK	7	Geisbert et al. (May 2002) "Evaluation in Nonhuman Primates of Vaccines against Ebola Virus"; <i>Emerging Infect. Dis.</i> 8(5):503-507	

Examiner Signature	R. Kelly	Date Considered	2/2/07
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Substitute for form 1449/PTO, based on PTO/SB/08A and 08B

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

OCT 12 2004
PATENT & TRADEMARK OFFICE

Application Number	10/735,601
Filing Date	December 12, 2003
First Named Inventor	Smith et al.
Art Unit	1636 / 633
Examiner Name	Brian A. Whiteman Robert Kelly
Attorney Docket Number	95-02

GWS 10/12/2004

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ZMK	25	Ward et al. (Sep. 2002) "Immunotherapeutic Potential of Whole Tumor Cells," <i>Cancer Immunol. Immunother.</i> 51:351-357.	

Examiner Signature	<i>R. A. Kelly</i>	Date Considered	2/2/07
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Substitute for form 1449/PTO, based on PTO/SB/08A and 08B

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

OCT 12 2003

Application Number	10/735,601
Filing Date	December 12, 2003
First Named Inventor	Smith et al.
Art Unit	4635 / 633
Examiner Name	Brian A. Whiteman Robert Kelly
Attorney Docket Number	95-02

GWS 10/12/2004

<i>ZMK</i>	26	Wilson et al. (Aug. 2001) "Vaccine Potential of Ebola Virus VP24, VP30, VP35, and VP40 Proteins"; <i>Virology</i> 286:384-390	
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Examiner Signature	<i>Robert S. Kelly</i>	Date Considered	<i>2/2/07</i>
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IDS of 10/7/04

ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

Title of Invention	Multi-Antigenic Alphavirus Replican Particles and Methods						
Application Number :	10/735601						
Confirmation Number:	2496						
First Named Applicant:	Jonathan Smith						
Attorney Docket Number:	95-02						
Art Unit:	1635-1633						
Examiner:	Brian Whiteman Robert Kelly						
Search string:	(6770283 or 6767699 or 6521235 or 6495143 or 6485958 or 6306388 or 6267967 or 6242259 or 6197502 or 6194191 or 6190666 or 6156558 or 6146874 or 5989553 or 5958738 or 5853719 or 5831016 or 5827658 or 5811407 or 5792462 or 5726022 or 5703057 or 5639650 or 5505947 or 5521082 or 5185440 or 4650764 or 20020102273 or 20020018766 or 20030021766 or 20030091591 or 20040166573).pn)						
US Patent Documents							
Note: Applicant is not required to submit a paper copy of cited US Patent Documents							
init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
ZMK	1	6770283	2004-08-03	Garoff et al.			
	2	6767699	2004-07-27	Polo et al.			
	3	6521235	2003-02-18	Johnston et al.			
	4	6495143	2002-12-17	Lee et al.			
	5	6485958	2002-11-26	Blanch et al.			
	6	6306388	2001-10-23	Nair et al.			
	7	6267967	2001-07-31	Johnston et al.			
	8	6242259	2001-06-05	Polo et al.			
	9	6197502	2001-03-06	Renner et al.			
	10	6194191	2001-02-27	Zhang et al			
	11	6190666	2001-02-20	Garoff et al.			
	12	6156558	2000-12-05	Johnston et al.			
	13	6146874	2000-11-14	Zolotukhin et al.			
	14	5989553	1999-11-23	Johnston et al.			
	15	5958738	1999-09-28	Lindemann et al.			
	16	5853719	1998-10-29	Nair et al.			
✓	17	5831016	1998-03-11	Wang et al.			
✓	18	5827658	1998-10-27	Liang, B.			
ZMK	19	5811407	1998-09-22	Johnston et al.			

R. L. Kelly 2/2/07

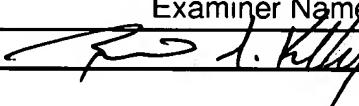
✓	20	5792462	1998-08-11	Johnston et al.			
✓	21	5726022	1998-03-10	Burmer, G.			
✓	22	5703057	1997-10-30	Johnston et al.			
✓	23	5639650	1997-06-17	Johnston et al.			
✓	24	5505947	1996-04-09	Johnston et al.			
✓	25	5521082	1996-05-28	Lewis et al.			
✓	26	5185440	1993-02-09	Davis et al.			
✓	27	4650764	1987-03-17	Temin et al.			

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
✓	1	20020102273	2002-08-01	Grieve et al.			
✓	2	20020018766	2002-02-14	Roberts et al.			
✓	3	20030021766	2003-01-30	Vadjy et al.			
✓	4	20030091591	2003-05-15	Xiong et al.			
✓	5	20040166573	2004-08-26	Smith et al.			

Signature

Examiner Name	Date
	2/2/07